**Lines, Angles and Shapes (F)**

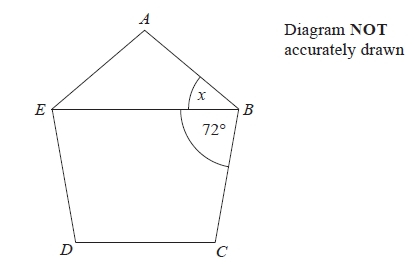
Post-Intervention Assessment

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Question** | **Objective** | **RAG** |
| 1 | Calculate interior and exterior angles of a regular polygon |  |
| 2 | Use the conditions for congruent triangles in formal geometrical proofs |  |
| 3 | Understand the relationship between a radius and a tangent |  |
| 4 | Apply circle theorems |  |

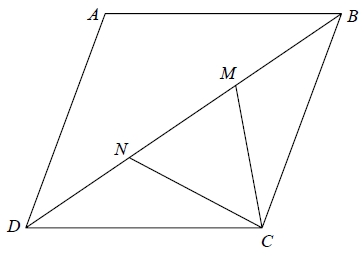
**1.** Diagram not drawn accurately .

ABCDE is a regular polygon.

EB is a straight line.

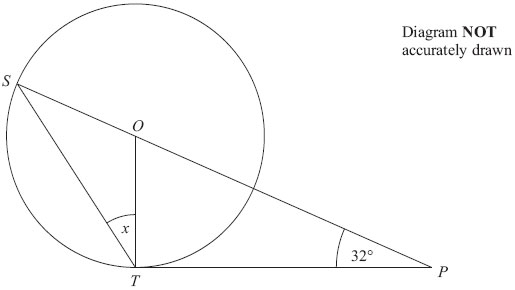
Angle EBC = 72°.

Work out the size of the angle marked x.

**2.** ABCD is a rhombus.

M and N are points on BD such that DN = MB.

Prove that triangle DNC is congruent to triangle BMC.

**3.** S and T are points on the circumference of a circle, centre O.

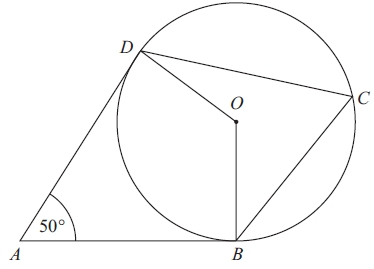
PT is a tangent to the circle.

SOP is a straight line.

Angle OPT = 32°

Work out the size of the angle marked x.

Give reasons for your answer.

**4.** Diagram NOT accurately drawn

B, C and D are points on the circumference of a circle, centre O.

AB and AD are tangents to the circle.

Angle DAB = 50°

Work out the size of angle BCD.

Give a reason for each stage in your working.

[Glue here]